RE: Harbor pathogen TMDL
Miller, Robin
to:
Rosella OConnor
01/13/2012 02:34 PM
Hide Details
From: "Miller, Robin" <Robin.Miller@hdrinc.com>

To: Rosella OConnor/R2/USEPA/US@EPA

History: This message has been forwarded.

Rosella:

As discussed, additional funds are needed to cover two things. First, the modeling work we have done to date to address grid cell by grid cell compliance and annual vs. seasonal compliance. The idea would be to replenish those funds so we don't fall short on the document or tech support later. Second, the new work that NJ is asking for related to Passaic River and Saddle River tributary boundary geometric means.

Here is the additional scope:
-PATH model simulations to support EPA and the States in determining standard attainment at all locations in the Hackensack and Passaic Rivers. (completed by borrowing document budget)
-Processing of PATH model outputs to gage level of standards attainment outside the bathing season. (completed by borrowing document budget)
-Analysis of variation in NJHDG group Saddle River and Dundee Dam Enterococci data. The variation will be used for developing time variable concentrations (above and below 35/100 ml, not constant at 35/100 ml) of TMDL PATH model inputs that comply with the seasonal geometric mean standard. This provides relief/equity to upstream dischargers who should not be held to achieving 35/100 ml at all times.
-PATH model simulations for the 2000 and 2003 years (since they bound the 1 in 3 year return interval) with levels of reductions from the most recent PATH simulation repeated (Passaic CSO 87%, Hackensack CSO 70%, 10%SW in Hackensack and Passaic, since these had seasonal compliance in all grid cells), except for in the new simulations, vary in time Saddle and Dundee Enterococci concentrations as directed by EPA and the State based on the results of the review of variation in NJHDG data.
-Report Hackensack and Passaic seasonal geo mean Enterococci outputs in every grid cell for 1 in 3 year return frequency.

If EPA/State likes compliance results, run for the additional 11 years.
If non-compliance of if EPA/State doesn't like compliance results, re-run 2000 and 2003 with a different

Passaic CSO reduction, check output, and then run for the additional 11 years.

As far as the budget addition to cover the above scope, I'm estimating: $24,700.

Robin

ROBIN LANDECK MILLER

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From: Rosella OConnor [mailto:OConnor.Rosella@epamail.epa.gov]
Sent: Wednesday, January 11, 2012 3:16 PM
To: Miller, Robin
Subject: RE: Harbor pathogen TMDL

Thank you, this is helpful. I left you a message about moving funds from Nutrients to Pathogens. I need an estimate of how much more we would need to address NJ's concerns (data analysis/model runs) and complete the document.

Rosella

From: "Miller, Robin" <Robin.Miller@hdrinc.com>
To: Rosella OConnor/R2/USEPA/US@EPA
Date: 01/11/2012 12:35 PM
Subject: RE: Harbor pathogen TMDL

Rosella:

I hope this answers your questions. The model run was done with the Passaic River and Saddle River loads set at a constant concentration of 35/100 ml Enterococci. This is not the same thing as a geometric mean concentration which is the point we have been discussing. State input would be needed for the variation to include in the Upper Passaic and Saddle loads We wouldn't know that upfront and depending upon how the upstream reductions are done, the variability may be different than the variability in existing data. Keep in mind that the flows for these Rivers are varying daily in the model so that even with constant concentration these tributary loads are already time variable. There is also the business of E coli to Enterococci conversion.

For any time variable load in a TMDL model, not just the boundary, the procedure that has been followed is:

1. The time variable load is reduced by the needed or prescribed percentage reduction, keeping the variation.
2. The mass delivered by the time variable load is summed over the duration of the simulation and then divided by the number of days to express the load as a total maximum daily load.
3. The number of days can vary. Loads such as tribs and STPs that go all the time are divided by total number of days. Wet

weather loads such as CSO and SW can be divided by number of wet days which is recommended for pathogens. We talked about this on one of the calls with EPA and the State.

For the Harbor toxics TMDL we drafted the document for recently had time variable loads handled in this manner.

Regarding budget, we have about 50% of the document budget still left and 100% of the budget for responding to technical comments still left.

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From: Rosella OConnor [mailto:OConnor.Rosella@epamail.epa.gov]
Sent: Wednesday, January 11, 2012 9:12 AM
To: Miller, Robin
Subject: Fw: Harbor pathogen TMDL

Hi Robin - Below is Barbara's e-mail regarding the boundary condition at the Dundee Dam. It is my understanding that the boundary condition was a seasonal geometric mean (as opposed to a "never to exceed" - as mentioned below). Also, following up on our discussion on how to deal with the boundary - can you please describe how the "variation" would be factored into the boundary load and how it affects the TMDL calculation. If the boundary load is variable, then the TMDL would also end up with variable reductions and loads (?).

Thanks,
Rosella

----- Forwarded by Rosella OConnor/R2/USEPA/US on 01/11/2012 09:06 AM -----

From: "Barbara Hirst" <Barbara.Hirst@dep.state.nj.us>
To: Rosella OConnor/R2/USEPA/US@EPA
Date: 01/10/2012 04:04 PM
Subject: Harbor pathogen TMDL

Rosella,

Re: Pathogen TMDL for NY/NJ Harbor

Based on our recent discussions, the schedule appears to be lagging and EPA is facing a budget problem. In addition to the delay experienced in resolving the issue of "what it would take" to achieve the entero geomean in all cells in the Hackensack (not the 40% previously presented in project reports), we have recently learned that "meeting standards" at the boundaries meant a model input assumption of never

exceeding the 35 entero level, which is decidedly more stringent than the intended standard expressed as a geomean, thus not the same as "meeting standards". To address this issue, we are continuing to work with Stevens to be able to provide appropriate input assumptions based on the modeling of the Passaic River above Dundee Dam. The Stevens work is expected to take at least another month.

As to the budget, we are very concerned by the information you shared yesterday that there is not enough money to 1) correct the model runs, 2) provide the agreed upon tmdl documentation and 3) provide assistance with responding to technical comments received after the tmdl is proposed. We will need to discuss how all these needs can be accommodated in order to be able to move forward with Harbor pathogen tmdls.